



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND  
5 Post Office Square, Suite 100  
Boston, MA, 02109-3912**

**Memorandum**

**Date:** May 18, 2011

**Subject:** Review of Further Vapor Intrusion Assessment at 2250 Main Street, Concord MA

**From:** Melissa Taylor, EPA Project Manager, Nuclear Metals Superfund Site

**Comments**

1. It is recommended that the indoor air and soil gas samples proposed be collected from the location of the highest concentration collected in the previous investigation (mechanical room). In addition, one indoor air sample (and a duplicate at the same location) may not be sufficient to adequately characterize spatial variability throughout the lower level. Though each occupied space does not need to be sampled, it is necessary to sample more than one location to provide representative data to evaluate exposures. Specifically, a location within or near the second floor residence will be necessary to evaluate residential air exposures. Alternatively, if no sampling is performed at the residential level, and indoor air and sub slab soil gas results from the lower level are above residential screening levels, a full VI study may need to be performed, EPA may require: 1) periodic monitoring of sub slab soil gas indoor air and documentation and reporting regarding building floors and any operational changes; and 2) an environmental deed restriction until concentrations of VOCs are within risk-based levels.
2. Because these data may be used for potential residential exposures within the building, a 24-hour sampling period is recommended to provide more representative data than the proposed 8-hour period, considered adequate for commercial exposures. Please address.
3. The residential RSL for TCE is 1.2 ug/m<sup>3</sup>. The proposed reporting limit of approximately 0.5 ug/m<sup>3</sup> is marginally acceptable being only 2-fold less than the RSL, when it is EPA's recommendation that reporting limits be at least 3 to 5-fold lower than the comparison criteria. Please address by providing additional justification for the proposed very limited reporting of VOCs in

indoor air and further justify that the approximate 0.5 ug/m<sup>3</sup> reporting limit will achieve project objectives.

4. Please address why Tier I instead of Tier II data validation is being performed.
5. A second round of sampling during the colder months when heating systems are active will be necessary because this sampling event will likely be performed during what might be considered non-worst-case conditions (i.e., outside the cold months and after the high groundwater period.) Please address.
6. For completeness, please provide details on the location and height for the outdoor air sample location.